ABSTRACT

A communication device for interconnection of first and second networks, of which at least the first network is a bidirectional ring network, includes first and second interconnect modules, each such module adapted to receive outgoing data traffic on the first network at a data rate not substantially greater than a predetermined maximum rate for one of the ring directions, and to convey the outgoing data traffic to the second network. When a fault occurs in one of the first and second modules, the other module is reconfigured to receive substantially all of the outgoing data traffic and to convey the outgoing data traffic to the second network regardless of whether the outgoing data traffic is transmitted on the first network in the clockwise or in the counterclockwise direction. Typically, each module has its own MAC address, but when the fault occurs in one of the modules, the other module receives the traffic transmitted both to its own MAC address and to the MAC address of the failed module.